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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,019	08/29/2003	Gregory R. Gingera	1213EC	9672
27310	7590	03/13/2007	EXAMINER	
PIONEER HI-BRED INTERNATIONAL, INC. 7250 N.W. 62ND AVENUE P.O. BOX 552 JOHNSTON, IA 50131-0552			KRUSE, DAVID H	
		ART UNIT	PAPER NUMBER	
		1638		
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/13/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/652,019	GINGERA ET AL.	
Examiner	<b>Art Unit</b>		
David H. Kruse	1638		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 19 December 2006.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-3,6-8,12-14,16-24,71 and 72 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-3,6-8,12-14,16-24,71 and 72 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 19 December 2006 is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO/SB/08)  
    Paper No(s)/Mail Date .  
4)  Interview Summary (PTO-413)  
    Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application  
6)  Other: \_\_\_\_\_

### **STATUS OF THE APPLICATION**

1. This Office action is in response to the Amendment and Remarks filed on 19 December 2006.
2. Those objections or rejections not specifically addressed in this Office action are withdrawn in view of Applicants' response.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Terminal Disclaimer***

4. The terminal disclaimer filed on 19 December 2006 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of U.S. Patent 6,613,963 B1 has been reviewed and is accepted. The terminal disclaimer has been recorded. Consequently the rejection of record on the ground of nonstatutory obviousness-type double patenting is withdrawn.

### ***Claim Rejections - 35 USC § 112***

5. Claims 1, 6-8, 12, 16 and 19-24 remain rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants' response filed on 19 December 2006 does not address the rejection of record in the Office action mailed 31 August 2006.
6. Claims 1-3, 6-8, 12-14, 16-24, 71 and 72 remain rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a

way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This rejection is repeated for the reason of record as set forth in the last Office action mailed 31 August 2006. Applicant's arguments filed 19 December 2006 have been fully considered but they are not persuasive.

Applicant has described a method of making the claimed plants, which can be readily followed by one skilled in the art, and has also provided structure in the form of deposits of seeds containing the claimed mutations. One of skill in the art can use the deposited seeds or can use the described methods to develop the claimed plants or plant parts, and that using the deposits and/or the methods described requires only routine experimentation to obtain the claimed plants or plant parts (page 4, 5<sup>th</sup> paragraph of the Remarks). This argument is not found to be persuasive because the instant claims are not limited to using deposited biological material.

Applicants argue that structural features are indeed provided in the deposited seeds (page 4, 7<sup>th</sup> paragraph of the Remarks). This argument is not found to be persuasive because the deposited seeds do not support the written description of the invention as broadly claimed. AHAS1 and AHAS3 mutation at instant claim 1, encompasses mutations much broader than what is exemplified in said deposited seed, as well as "a level of herbicide".

Applicants argue that the deposits provide the necessary structure and the subsequent correlation of the structure to the function, and that Applicants has provided much more than just a desired function. Applicants argue that they have provided both

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the structure and function by means of deposits and a detailed method for producing and identifying the claimed plants and plant parts (page 5, 2<sup>nd</sup> paragraph of the Remarks). This argument is not found to be persuasive for the reasons given above.

Applicants argue that identification of the claimed plants can readily be determined by spraying the plants with a level of herbicide that prevents or inhibits growth of a wild-type *Brassica juncea* plant, and that the test is far easier than a molecular test, which is beyond the realm of the average purchaser of the seed (page 5, 3<sup>rd</sup> paragraph of the Remarks). This argument is not found to be persuasive. See MPEP § 2163 which states that the claimed invention as a whole may not be adequately described where an invention is described solely in terms of a method of its making coupled with its function and there is no described or art-recognized correlation or relationship between the structure of the invention and its function. A biomolecule sequence described only by a functional characteristic, without any known or disclosed correlation between that function and the structure of the sequence, normally is not a sufficient identifying characteristic for written description purposes, even when accompanied by a method of obtaining the claimed sequence.

7. Claims 1-3, 6-8, 12-14, 16-24, 71 and 72 remain rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This rejection is repeated for the reason of record as set forth in the last Office action mailed 31 August 2006. Applicant's

arguments filed 19 December 2006 have been fully considered but they are not persuasive.

Applicants argue that they disclose that under rates used in the field and greenhouse, plants containing single AHAS1 tolerance did not die, but are severely stunted, grow multiple racemes and are very late to flower and mature. In our normal screening program, we discarded these individuals, accordingly, both AHAS1 and AHAS3 mutant genes appear to be required for the levels of tolerance evaluated in these experiments (page 6, 4<sup>th</sup> paragraph of the Remarks). This argument is not found to be persuasive. Without the molecular information regarding the *B. juncea* AHAS gene sequences provided by the invention of Yao *et al* (United States Patent Application 2005/0283858, pages 1-2, ¶ 0008) there would be no way to confirm that the mutated AHAS1 gene from *B. napus* was successfully transferred to *B. juncea*. In addition, the instant claims are directed to a multitude of mutations in both the AHAS1 and AHAS3 genes for which the instant application provides no guidance.

Applicants argue that the confirmation by Yao *et al*. that the techniques taught in the present application can be used by others clearly demonstrates that the present application is enabled for identifying the claimed plants without molecular information. Applicants argue that molecular information is a useful breeding tool for efficiently developing commercial lines, but is not essential to the development of the present claimed plants, and that should one choose to use molecular information, such information can be determined by one of ordinary skill in the art (page 6, 6<sup>th</sup> paragraph of the Remarks). This argument is not found to be persuasive because it is Applicants'

burden to enable the claimed invention at the time of filing, a post-filing disclosure cannot be used to argue enablement of the instant invention as broadly claimed.

Applicants argue that the experimentation required is routine and has been well described in the specification, and that the specification provides working examples of the invention as well as deposits which enable the claimed plants. Applicants argue that the skill in the art is high and the claims are commensurate in scope with the disclosure in the specification and the deposits (page 7, 2<sup>nd</sup> paragraph of the Remarks). These arguments are not found to be persuasive for the reasons of record.

Applicants argue that no more than routine experimentation is required, and that this may be accomplished by the methods within the present application and within the technical, scientific skill in the art. Applicants argue the present invention is disclosed in a way that one skilled in the art will be able to practice it without an undue amount of experimentation (page 7, 5<sup>th</sup> and 6<sup>th</sup> paragraphs of the Remarks). These arguments are not found to be persuasive. These arguments are not found to be persuasive. The instant invention teaches using mutant plants having resistance to an AHAS herbicide. Mutations in a plants genome are by their very nature ransom, unpredictable events, hence it would have required undue trial and error experimentation to make and use the invention as claimed.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. No claims are allowed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Kruse, Ph.D. whose telephone number is (571) 272-0799. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at (571) 272-0975. The central FAX number for official correspondence is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-1600.

DAVID H. KRUSE, PH.D.  
PRIMARY EXAMINER



David H. Kruse, Ph.D.  
5 March 2007

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11. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

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